

L8 ANSWER 1 OF 4 USPATFULL
AN 2002:243856 USPATFULL
TI Process for production of alcohols
IN Chuang, Karl T., Edmonton, CANADA
Chen, Yung F., Taoyuan City, TAIWAN, PROVINCE OF CHINA
PI US 2002133050 A1 20020919
AI US 2001-918474 A1 20010801 (9)
PRAI US 2001-261203P 20010116 (60)
DT Utility
FS APPLICATION
LREP Philip C. Mendes da Costa, Bereskin & Parr, 40 King Street West, Box
401, Toronto, ON, M5H 3Y2
CLMN Number of Claims: 29
ECL Exemplary Claim: 1
DRWN 18 Drawing Page(s)
LN.CNT 1304

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB The invention disclosed relates to the production of **alcohols**.
A first aspect of the invention relates to a process for production of
alcohols, and in particular to a process for the catalytic
hydration of an **olefin** to the corresponding
alcohol in substantially anhydrous form, under selected mild
reaction conditions, and using a selected **catalyst**. A second
aspect of the invention relates to a process for dehydration of an
azeotropic mixture, including a first **alcohol** and
water. A **hydration** reaction between the **water**
in the azeotropic mixture and an added **olefin**, under selected
mild conditions, and using a selected **catalyst**, produces a
product including a second **alcohol** corresponding to the
olefin, and the first **alcohol**, in substantially
anhydrous form.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L8 ANSWER 2 OF 4 USPATFULL
AN 2001:120972 USPATFULL
TI Field assisted transformation of chemical and material compositions
IN Yadav, Tapes K., Longmont, CO, United States
Meramadi, Bijan K., Longmont, CO, United States
PA Nanomaterials Research Corporation, United States (U.S. corporation)
PI US 6267864 B1 20010731
AI US 1999-286698 19990406 (9)
RLI Continuation-in-part of Ser. No. US 1998-165439, filed on 2 Oct 1998
PRAI US 1998-110710P 19981203 (60)
US 1998-100269P 19980914 (60)
DT Utility
FS GRANTED
EXNAM Primary Examiner: Wong, Edna
LREP Hogan & Hartson, L.L.P.
CLMN Number of Claims: 37
ECL Exemplary Claim: 1
DRWN 7 Drawing Figure(s); 4 Drawing Page(s)
LN.CNT 1807

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB Methods and devices for transforming less desirable chemical species
into more desirable or useful chemical forms are disclosed. The
specifications can be used to treat pollutants into more benign
compositions and to produce useful chemicals from raw materials and
wastes. The methods and devices disclosed utilize continuous or

temporary pulse of electrical current induced by electromagnetic field and high surface area formulations. The invention can also be applied to improve the performance of existing **catalysts** and to prepare novel devices.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L8 ANSWER 3 OF 4 USPATFULL
AN 2001:88753 USPATFULL
TI Processes for electrically activated transformation of chemical and material compositions
IN Yadav, Tapesh, Longmont, CO, United States
Miremadi, Bijan K., Longmont, CO, United States
PI US 2001000889 A1 20010510
AI US 2000-730053 A1 20001205 (9)
RLI Continuation of Ser. No. US 1998-165439, filed on 2 Oct 1998, PENDING
PRAI US 1999-161098P 19991022 (60)
US 1998-100269P 19980914 (60)
DT Utility
FS APPLICATION
LREP Stuart T. Langley, Hogan & Hartson, L.L.P., One Tabor Center, 1200 Seventeenth Street, Suite 1500, Denver, CO, 80202
CLMN Number of Claims: 22
ECL Exemplary Claim: 1
DRWN 7 Drawing Page(s)
LN.CNT 2189

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB Illustrations are provided on applications and usage of electrically activated **catalysts**. Methods are disclosed for preparing **catalysts** from nanomaterials. Processes and devices are described that utilize **catalysts**. The invention can also be applied to improve the performance of existing **catalysts**, to enhance the performance of substances by inducing or applying charge in nanostructured forms of substances, and to prepare novel devices. Example processes for hydrogen production are discussed. Finally, the invention can be utilized to engineer the thermal, structural, electrical, magnetic, electrochemical, optical, photonic, and other properties of nanoscale substances.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L8 ANSWER 4 OF 4 USPATFULL
AN 2001:51419 USPATFULL
TI Method and device for transforming chemical compositions
IN Yadav, Tapesh, Boulder, CO, United States
Meramadi, Bijan, Longmont, CO, United States
PA Nanomaterials Research Corporation, Longmont, CO, United States (U.S. corporation)
PI US 6214195 B1 20010410
AI US 1998-165439 19981002 (9)
PRAI US 1998-100269P 19980914 (60)
DT Utility
FS Granted
EXNAM Primary Examiner: Wong, Edna
LREP Langley, Stuart T.
CLMN Number of Claims: 18
ECL Exemplary Claim: 1
DRWN 4 Drawing Figure(s); 3 Drawing Page(s)
LN.CNT 1708

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB Methods and devices for transforming less desirable chemical species into more desirable or useful chemical forms are disclosed. The specifications can be used to treat pollutants into more benign compositions and to produce useful chemicals from raw materials and wastes. The methods and devices disclosed utilize electrical current induced by electromagnetic field and high surface area formulations.

The invention can also be applied to improve the performance of existing **catalysts** and to prepare novel devices.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L40 ANSWER 1 OF 12 CAPLUS COPYRIGHT 2003 ACS
AN 1997:303591 CAPLUS
DN 126:344747
TI More uses for catalytic distillation
AU Podrebarac, G. G.; Ng, F. T. T.; Rempel, G. L.
CS Chem. Res. & Licensing, Pasadena, TX, 77507, USA
SO CHEMTECH (1997), 27(5), 37-45
CODEN: CHTEDD; ISSN: 0009-2703
PB American Chemical Society
DT Journal; General Review
LA English
AB A review, with 56 refs., of **catalytic distn.**, in which
a heterogeneously catalyzed reaction and distn. of the products and
reagents occur simultaneously within a distn. column. Advantages and
disadvantages, applications of **catalytic distn.**
(etherification, **hydration** of **olefins**, dehydration of
alc., alkylation of benzene, esterification and hydrolysis, **olefin**
oligomerization, hydrogenation, addn. of alcs. to aldehydes, addn. of
amines to ketones), and catalyst structure are discussed.

(FILE 'HOME' ENTERED AT 10:08:12 ON 15 JAN 2003)

FILE 'CAPLUS, USPATFULL' ENTERED AT 10:08:21 ON 15 JAN 2003

L1 826 S OLEFIN (P) HYDRATION (P) ALCOHOL
L2 26 S L1 AND CATALYTIC DISTILLATION
L3 22 S L2 AND WATER
L4 21 S L3 AND SOLID
L5 21 S L4 AND CATALYST
L6 6 S L5 AND SILICATE
L7 5 S L6 AND ISOPROPANOL
L8 4 S L7 AND ISOBUTENE
L9 2 S L6 NOT L8
L10 15 S L5 NOT L6
L11 15 DUP REM L10 (0 DUPLICATES REMOVED)
L12 216934 S OLEFIN
L13 14715 S L12 AND HYDRAT?
L14 10598 S L13 AND CATALY?
L15 9276 S L14 AND WATER
L16 6949 S L15 AND ALCOHOL
L17 4350 S L16 AND DISTIL?
L18 2261 S L17 AND ANHYDROUS
L19 1847 S L18 AND RATIO
L20 1716 S L19 AND PRESSURE
L21 1713 S L20 AND TEMPERATURE
L22 149 S L21 AND PROPENE
L23 70 S L22 AND SILICATE
L24 134 S L22 AND SILI?
L25 89 S L24 AND ?PROPANOL
L26 86 S L25 AND LIQUID
L27 745927 S VAPOUR OR VAPOR
L28 3421810 S 27 OR GAS
L29 85 S L26 AND L28
L30 326518 S HYDROPHOBIC OR HETEROGENEOUS
L31 54945 S L30 AND RESIN
L32 35 S L29 AND L30
L33 17 S L32 AND RESIN
L34 17 S L33 AND ?BUTENE
L35 8 S L34 AND ?BUTANOL
L36 9 S L34 NOT L35
L37 18 S L32 NOT L34
L38 18 DUP REM L37 (0 DUPLICATES REMOVED)
L39 9 S L22 AND CATALYTIC DISTILLATION
L40 12 S OLEFIN (P) HYDRAT? (P) CATALYTIC DISTILLATION

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